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EXAMINER

HAILE, FEBEN

ART UNIT PAPER NUMBER

2663

DATE MAILED: 09/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/924,719

Applicant(s)

AGIN ET AL.

Examiner

Feben M. Haile

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 28 June 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18, 21 and 23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18, 21 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. In view of applicant's amendment filed June 28, 2005, the status of the application is still pending with reference to claims 1-18, 21, and 23.

2. The amendment filed is insufficient to overcome the rejection of claims 1-18, 21, and 23 because:

Regarding claim 1, the addition: A method for controlling traffic load comprising: receiving one or more limits related to processing capacity of a base station, wherein said one or more limits corresponding to one or more parameters representative of said traffic load of the network; and controlling traffic to the base station of the base station according to said one or more limits fails to further limit the scope of the claim, therefore the subject matter is not patentable over the prior art.

Regarding claim 21, the addition: A base station for a mobile radio network comprising: means for signaling one or more limits in its processing capacity to a base station controller that controls said base station; and means for receiving traffic control signals from said base station controller, said traffic control signals being determined according to said limits fails to further limit the scope of the claim, therefore the subject matter is not patentable over the prior art.

Regarding claim 23, the addition: A base station controller for a mobile radio network, comprising: ... and means for sending traffic control signals to said base station according to the limits.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 21, and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Fapojuwu (US 6,330,232), hereinafter referred to as Fapojuwu.

Regarding claim 1, Fapojuwu discloses receiving one or more limits related to processing capacity of a base station, wherein said one or more limits corresponding to one or more parameters representative of said traffic load of the network (**column 1 lines 47-48; receiving a representation of available call capacity from each base station**) and controlling traffic to the base station according to said one or more limits (**column 1 lines 51-52; using the representations to determine which base station to enable handling a call**).

Regarding claim 21, Fapojuwu discloses means for signaling one or more limits in its processing capacity to a base station controller that controls said base station (**column 1 lines 49-50; determining which of the base stations has the greatest available call capacity**), said limits corresponding to one or more parameters representative of traffic load's (**column 2 lines 3-4; determining power available to support calls**) and means for receiving traffic control signals from said base station controller said traffic control signals being determined according to said limits (**column**

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1 lines 51-52; according to the determinations enabling a base station to handle a call).

Regarding claim 23, Fapojuwu discloses means for verifying whether one or more limits in the processing capacity of a base station under its control and corresponding to one or more parameters representative of traffic load has been reached (**column 1 lines 49-50; determining which of the base stations has the greatest available call capacity**); and means for sending traffic control signals to said base station according to the limits (**column 1 lines 51-52; according to the determinations enabling a base station to handle a call**).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-3, 5-8, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fapojuwu (US 6,330,232), hereinafter referred to as Fapojuwu in view of Andersson et al. (US 6,434,380), hereinafter referred to as Andersson.

Regarding claim 2, Fapojuwu discloses the limitations of base claim 1.

Fapojuwu fails to teach wherein one of said parameters is associated with the number of radio links that can be established and a corresponding limit is represented by a maximum number of radio links that can be established.

Andersson discloses resources in a prospective connection are handover legs (column 2 lines 9-11). Andersson further teaches a capacity management system that negotiates resources for a prospective connection. It would be obvious that Andersson's capacity management system would represent the maximum number of handover legs that can be established in a prospective connection because it would provide a more efficient use of the channels, thus creating a network with a more reliable transmission process.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Fapojuwo to incorporate the teachings of Andersson. The motivation being an enhanced method of obtaining resources of a wireless telecommunications system in connection with admitting and/or sustaining a call.

Regarding claim 3, Fapojuwo as modified by Andersson disclose the limitations of base claim 2. Andersson further teaches that wherein said maximum number of radio links is a maximum number of radio links that can be established in marcodiversity (figure 1 column 3 lines 38-43; two different base stations connected to the same radio network controller transmit information to one user equipment unit).

Regarding claim 5, Fapojuwo as modified by Andersson disclose the limitations of base claim 2. It would be obvious that Andersson's capacity management system would represent the maximum number of handover legs that can be established in a prospective connection because it would provide a more efficient use of the channels, thus creating a network with a more reliable transmission process.

Regarding claim 6, Fapojuwo discloses the limitations of base claim 1.

Fapojuwu fails to teach wherein one of said parameters is associated with data rate for established radio links and a corresponding limit is represented by a maximum data rate for the established radio links.

Andersson discloses resources in a prospective connection are bit rates (column 1 lines 42-45). It would be obvious that Andersson's capacity management system would represent the maximum bit rate that can be established in a prospective connection because it would provide data integrity for the transmitted information).

Regarding claim 7, Fapojuwu as modified by Andersson disclose the limitations of base claim 6. Andersson further teaches a capacity management system that negotiates resources for a prospective connection. It would be obvious that after Andersson's capacity management system has established a maximum bit rate for the prospective connection, that bit rate would be used in the up direction because it would provide data integrity for the information being transmitted from the user equipment to the base station.

Regarding claim 8, Fapojuwu as modified by Andersson disclose the limitations of base claim 6. Andersson further teaches a capacity management system that negotiates resources for a prospective connection. It would be obvious that after Andersson's capacity management system has established a maximum bit rate for the prospective connection, that bit rate would be used in the down direction because it would provide data integrity for the information being transmitted from the base station to the user equipment.

Regarding claim 14, Fapojuwu discloses the limitations of base claim 1.

Fapokuwo fails to teach wherein said limits are considered on a per cell or a per base station basis.

Anderson discloses that a capacity management system is responsible for a single cell (column 4 lines 43-45).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Fapokuwo to incorporate the teachings of Andersson. The motivation being an enhanced method of obtaining resources of a wireless telecommunications system in connection with admitting and/or sustaining a call.

5. Claims 4 and 9-13 rejected under 35 U.S.C. 103(a) as being unpatentable over Fapokuwo (US 6,330,232), hereinafter referred to as Fapokuwo in view of Andersson et al. (US 6,344,380), hereinafter referred to as Andersson in view of Hottinen et al. (US 2002/0012380).

Regarding claim 4, Fapokuwo as modified by Andersson disclose the limitations of base claim 2. It is further obvious that Andersson's maximum number of radio links established by the processing capacity management system is the maximum number of radio links used in a transmission process because it would provide a more efficient use of the channels, thus creating a network with a more reliable transmission process.

Fapokuwo, Andersson or their combination fail to teach the limitation that the transmission process used for the maximum number of radio links is transmission diversity.

Hottinen discloses a radio system where a signal can be transmitted over at least two transmit antenna paths (page 2 paragraph 0024).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Anderson to incorporate the transmission diversity taught by Hottinen. The motivation being: eliminating signal fading on the radio path thus creating more reliable transmissions.

Regarding claim 9, Fapojuwo as modified by Andersson disclose the limitations of base claim 6. It is further obvious that Andersson's maximum data rate established by the processing capacity management system is used for a first type of traffic because it would provide data integrity for the transmitted information.

Fapojuwo, Andersson, or their combination fail to teach the limitation where an error correcting code is used for a first type of traffic.

Hottinen discloses the use of an encoder for the channel coding of packets arriving at a radio network subsystem (figure 2A unit 202 and page 3 paragraph 0041).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Andersson to incorporate the coding feature taught by Hottinen. The motivation being: adding redundancy into the data so as to protect against transmission errors.

Regarding claim 10, Fapojuwo as modified by Andersson disclose the limitations of base claim 6. It is further obvious that Andersson's maximum data rate established by the processing capacity management system is used for a second type of traffic because it would provide data integrity for the transmitted information. .

Fapjuwo, Andersson, or their combination fail to teach the limitation where an error correcting code is used for a second type of traffic.

Hottinen discloses the use of an encoder for the channel coding of packets arriving at a radio network subsystem (figure 2A unit 202 and page 3 paragraph 0041).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Andersson to incorporate the coding feature taught by Hottinen. The motivation being: introducing redundancy into the data so as to protect against transmission errors.

Regarding claim 11, Fapjuwo as modified by Andersson and further modified by Hottinen disclose the limitations of base claim 9. Hottinen further teaches wherein a first type of error correction code is a turbo-code (page 3 paragraph 0041).

Regarding claim 12, Fapjuwo as modified by Andersson and further modified by Hottinen disclose the limitations of base claim 10. Hottinen further teaches wherein a second type of error correcting code is a convolutional code (page 3 paragraph 0041).

Regarding claim 13, Fapjuwo as modified by Andersson disclose the limitations of base claim 6.

Fapjuwo, Anderson, or their combination fail to teach the limitation wherein said data rate is a net data rate.

Hottinen discloses a channel decoder to decode the channel coding used in the transmission (figure 2A unit 228 and page 4 paragraph 0057).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Andersson to incorporate the decoder taught by Hottinen.

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The motivation being: the decoder would remove the redundancy from the encoded channel thereby creating the original stream of data.

6. Claims 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fapojuwo (US 6330,232), hereinafter referred to as Fapojuwo in view of Hottinen et al. (US 2002/0012380), hereinafter referred to as Hottinen.

Regarding claim 15, Fapojuwo discloses the limitations of base claim 1.

Fapojuwo fails to teach the limitation wherein said limits are considered per physical channel.

Hottinen discloses that the measurement of channel quality is related to channel conditions such as channel parameters, power, or bit error rate (page 5 column 0064).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Andersson to incorporate the physical channels taught by Hottinen. The motivation being: physical channels allow the option of choosing between transmitting data either to all subscribers or subscriber-specific units.

Regarding claim 16, Fapojuwo discloses the limitations base claim 1.

Fapojuwo fails to teach the limitation wherein said limits are considered per type of physical channel.

Hottinen discloses that the measurement of channel quality is related to channel conditions such as, power, bit error rate, etc...(page 5 column 0064) and that physical channels are divided into different types (page 3 paragraph 0037).

It would have to one having ordinary skill in the art at the time the invention was made to modify Anderson to incorporate the different types of physical channels taught by Hottinen. The motivation being: physical channels allow the option of choosing between transmitting data either to all subscribers or subscriber-specific units.

Regarding claim 17, Fapojuwo as modified by Hottinen disclose the limitations of base claim 16. Hottinen further teaches wherein one type of physical channel is a dedicated physical channel (page 3 paragraph 0037).

Regarding claim 18, Fapojuwo as modified by Hottinen discloses the limitations of base claim 16. Hottinen further teaches wherein one type of physical channel is a common physical channel (page 3 paragraph 0037).

Response to Arguments

7. Applicant's arguments with respect to claims 1-18, 21, and 23 have been considered but are moot in view of the new ground(s) of rejection.

On page 8 & 11 of the amendment, applicant respectfully traverses that both Andersson et al. and Hottinen et al. fail to teach or suggest at least limits related to the processing capacity of a base station, and controlling traffic to the base station according to those limits, thus the combination of the two would not result in the claimed invention. Examiner respectfully replies that because of applicant's amendment, a reference Fapojuwo (US 6,330,232), hereinafter referred to as Fapojuwo is applied to the above claims for a new grounds of rejection. This reference discloses receiving a representation of a base stations available call capacity and enabling the base station to

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handle a call according to the representations. Thus Fapojuwo as modified by Andersson et al. and Hottinen et al. would result in the claimed invention.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

a) Aksentijevic et al. (US 6,738,624), Method and System for Capacity Reporting in a Mobile Telecommunications Network

b) Choi (US 6,278,882), Call Control Method in Base Station of CDMA Mobile Radio Communication System

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Feben M. Haile whose telephone number is (571) 272-3072. The examiner can normally be reached on 6:00am - 3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HH 09/22/2005


RICKY NGO
PRIMARY EXAMINER
9/27/05